



2011 Global Forest Products Facts and Figures

FAO's forest product statistics present figures for the production and trade (quantity and value) of forest products, covering 52 product categories, 21 product groups and 245 countries and territories. At the end of each year, final statistics are released for the previous year. In December, these are uploaded onto the FAOSTAT Forestry database (<http://www.fao.org/forestry/statistics/en>), then they are published in the Yearbook of Forest Products in the following April (<http://www.fao.org/forestry/statistics/80570/en>). Statistics from 1961 onwards are available on the FAOSTAT Forestry database and the Yearbook has been published every year since 1947.

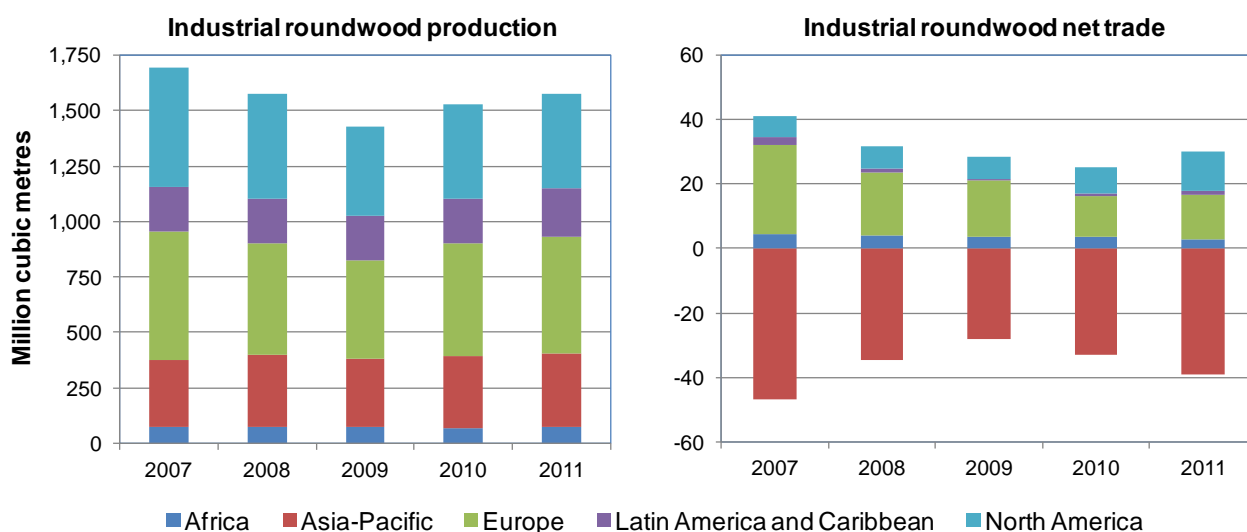
Highlights for 2007-11

This note - "*Global Forest Products Facts and Figures*" - presents highlights and recent trends in the data for each of the main product groups, as well as a short summary of recent changes or improvements to the statistics. Some of the main highlights from the statistics are as follows:

- The recent economic recession appears very clearly in the statistics for the last five years, but has affected markets and regions differently. Globally, production of industrial roundwood and sawnwood declined in 2007-09 and have not so far recovered, but production of wood-based panels in 2011 is now higher than in 2007 and production of pulp and paper was only affected for one year (2009). Most of the impact of the recession was felt in Europe and North America, while the other three main regions of the World were not affected very much.
- China continues to increase in importance as a producer and consumer of forest products and has overtaken a number of other major countries in different product groups (e.g. overtaking Canada in sawnwood production and United States of America in fibre furnish consumption and paper and paperboard production). China is also highly significant for international trade in forest products, being the largest importer in the World of industrial roundwood, sawnwood and fibre furnish and the largest exporter of wood-based panels. China is also the fifth largest importer of paper and paperboard, despite a huge increase in domestic production since 2007.
- The structure of production and trade in Russian Federation has also changed in the last five years, with a decline in industrial roundwood exports and increases in sawnwood production and exports. A lot of industrial roundwood exports previously went to China and this partly accounts for the fall in Chinese imports from 2007-09. However, Chinese imports of industrial roundwood have recovered and some other major countries have expanded exports of industrial roundwood (e.g. United States of America, Canada and New Zealand).
- Production and consumption of wood-based panels appears to be growing relatively strongly in most regions (especially compared to the trends in sawnwood production and consumption). In the markets for pulp and paper, overall growth was very modest over the period 2007-11, with a growth trend of about one percent per year. However, this conceals major differences at the regional level, where pulp and paper production and consumption is increasing significantly in the Asia-Pacific region, but generally declining in Europe and North America.

Industrial roundwood

Industrial roundwood is all roundwood used for any purpose other than energy. It comprises: pulpwood; sawlogs and veneer logs; and other industrial roundwood (e.g. fence posts and telegraph poles). This product group is also divided into roundwood from coniferous and non-coniferous species.

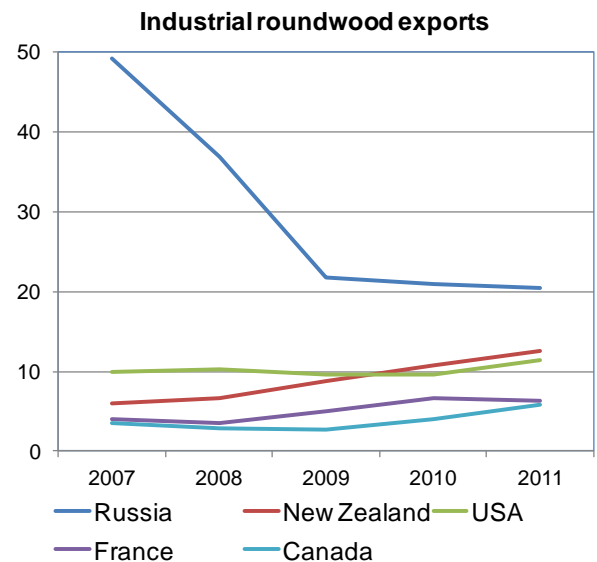
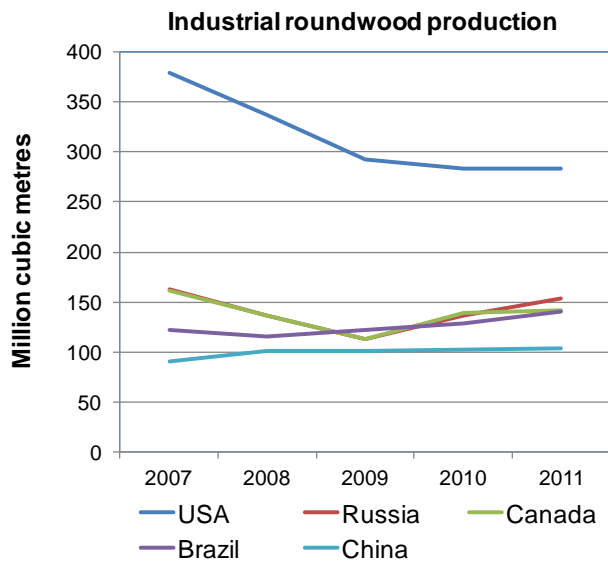


In 2011, global industrial roundwood production amounted to 1,578 million m³. This is an increase of 3.3% over the figure for 2010 (1,528 million m³). As the figure above shows, production has increased since the low point of 2009, but it is still below the level of production reported five years ago.

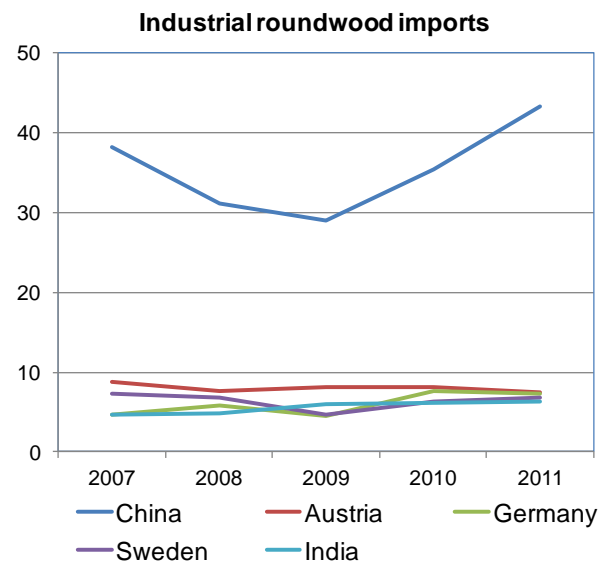
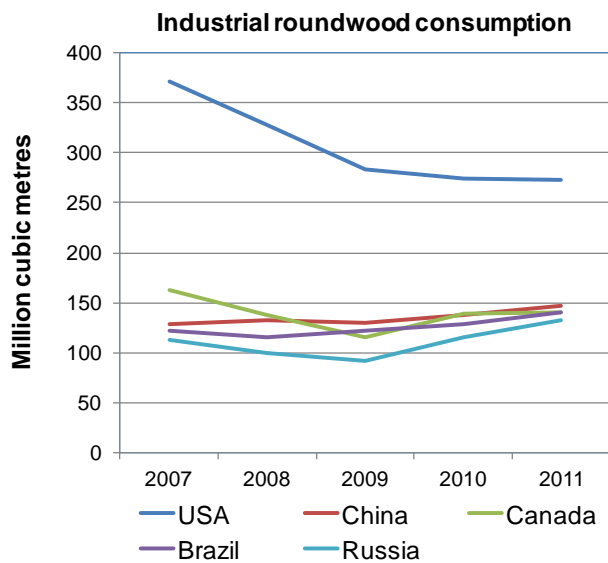
Most of the contraction and recovery in production has occurred in two regions: Europe and North America. Production in the other three regions has remained roughly the same over the last five years. In 2011, production in each region was as follows: Europe (including Russian Federation) - 524 million m³ (33%); North America (USA and Canada) - 426 million m³ (27%); Asia-Pacific - 335 million m³ (22%); Latin America and Caribbean - 220 million m³ (14%); and Africa - 72 million m³ (5%).

Global trade in industrial roundwood amounted to 119 million m³ in 2011 (equal to about 8% of production). Trends in total trade and net trade over the last five years also show a decline to 2009 followed by a slight recovery since then. At the regional level, Asia-Pacific is a net importer of industrial roundwood and all other regions are net exporters. Net imports of 39 million m³ accounted for about 10% of consumption in the Asia-Pacific region in 2011. Europe and North America are the main net exporters of industrial roundwood with net exports in 2011 of 14 million m³ and 12 million m³ respectively. The latter figure for North America is twice the figure reported in 2009.

At the country level, the five largest producers of industrial roundwood are: United States of America; Russian Federation; Canada; Brazil; and China. Together, these countries produced 822 million m³ in 2011 or 52% of total global production. The United States of America is by far the largest producer in the World (284 million m³ in 2011), but production has declined over the last five years. Production also declined in Russian Federation and Canada in 2009, but has recovered since then. Brazil and China continue to follow a long-term trend of modest growth in production, with a significant proportion of this production coming from planted forests.



Compared with other forest products, exports of industrial roundwood are relatively small and only 15-20 countries export more than 1 million m³ each year. Exports from the five largest exporters amounted to 57 million m³ in 2011 or 49% of all exports. Russian Federation is the main exporter, although exports have declined by over 50% in recent years. Other major exporters are: New Zealand; United States of America; France; and Canada.

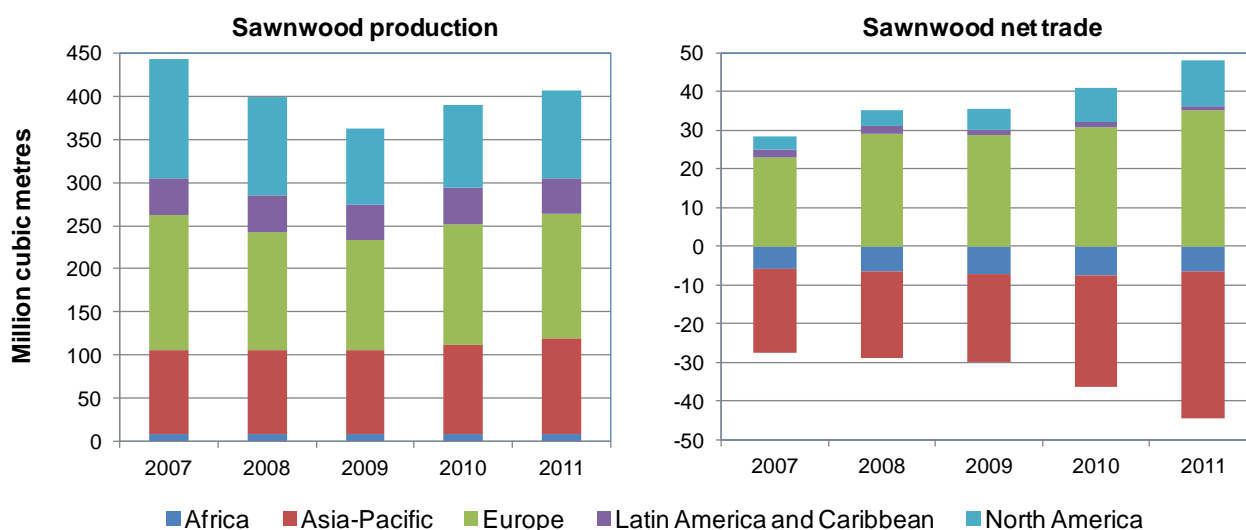


Due to the relatively small volumes of international trade in industrial roundwood, the five largest producers are also the five largest consumers. However, China is the second largest consumer (146 million m³ in 2011) and Russian Federation is in fifth place (at 133 million m³). Again, Russian Federation and Canada both show significant growth in consumption since the low point in 2009, whereas consumption in United States of America has yet to recover.

As the second figure shows, almost one-third of China's industrial roundwood consumption is satisfied by imports (43 million m³ in 2011). Russian Federation accounts for a large share of these imports, although imports from other countries are increasing in importance. After China, other major importers of industrial roundwood are: Austria; Germany; Sweden; and India. Together, these five countries imported 71 million m³ of industrial roundwood in 2011 (equal to 57% of all imports).

Sawnwood

Sawnwood encompasses planks, beams, boards, laths, sleepers, etc. that exceed 5 mm in thickness. It includes sawnwood that is planed, unplaned, grooved, chamfered, beaded, etc., but it excludes wooden flooring. This category is subdivided in FAO statistics into coniferous and non-coniferous sawnwood.

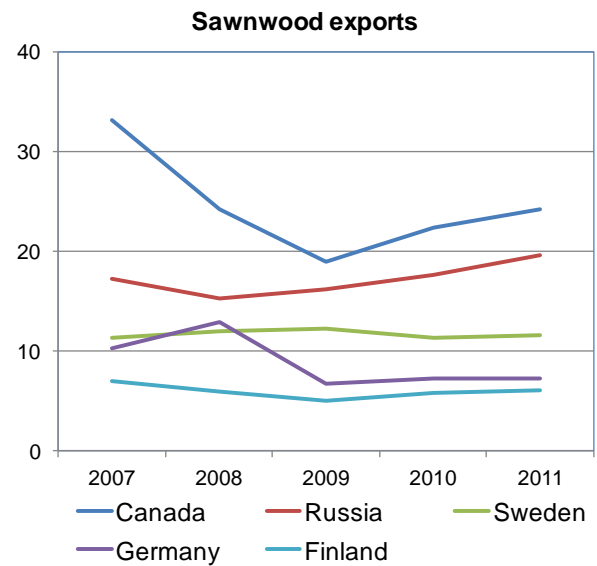
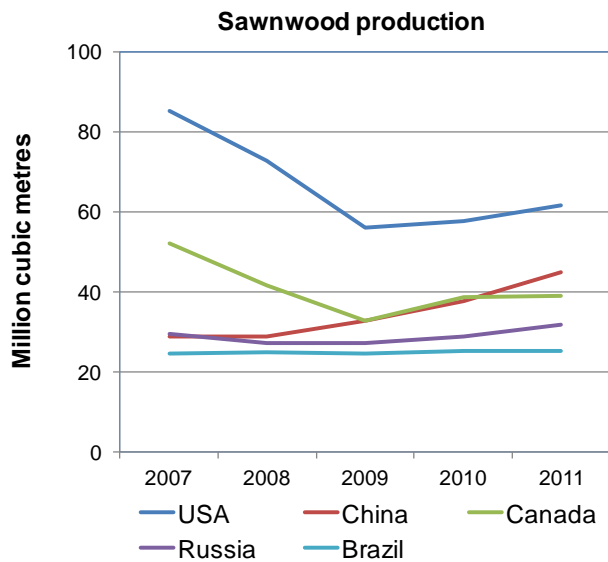


In 2011, global sawnwood production totalled 406 million m³, representing an increase of 4.2% compared to 2010 (390 million m³) and an increase of 11.8% over the figure for 2009 (363 million m³). As can be seen from the left figure above, sawnwood production declined a lot between 2007 and 2009, but is recovering gradually. This trend is largely due to changes in production in two regions: Europe and North America. In contrast, production in Africa and Latin America and Caribbean remained steady over the period 2007-11 and increased slightly in the Asia-Pacific region. The latest regional production figures (for 2011) are as follows: Europe - 144 million m³ (35%); Asia-Pacific - 111 million m³ (27%); North America - 101 million m³ (25%); Latin America and Caribbean - 42 million m³ (10%); and Africa - 8 million m³ (2%).

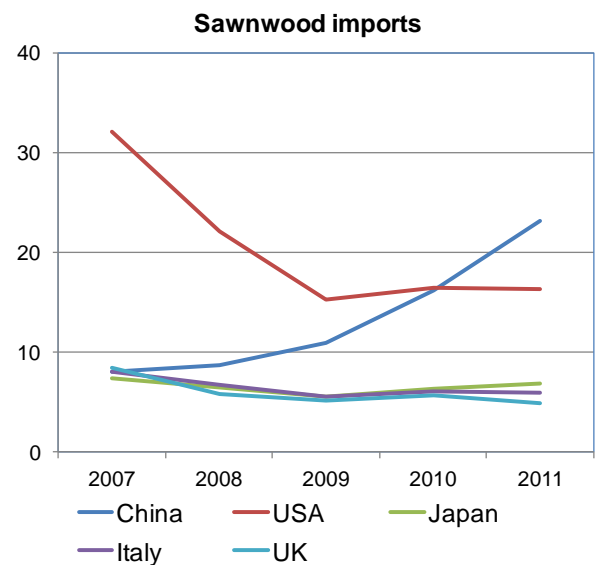
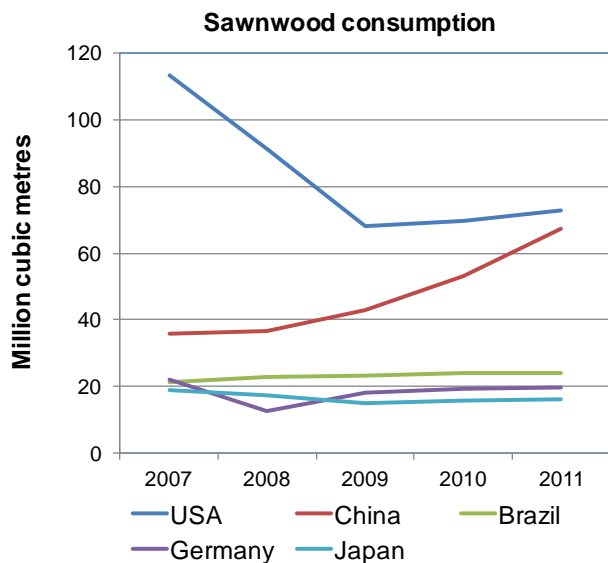
Global trade in sawnwood amounted to 118 million m³ in 2011 (equal to 29% of production) and, like production, total trade declined in 2007-09 followed by a slight recovery since then. However, much of this decline in trade occurred within Europe and North America. Looking at net trade between the five regions, this has consistently increased in the last five years.

Africa and Asia-Pacific are the two regions that are net importers of sawnwood (with net imports of 6 million m³ and 38 million m³ respectively in 2011) and Europe (35 million m³) and North America (12 million m³) are the main net exporters of sawnwood. The Latin America and Caribbean region is also a net exporter, with net exports of 1 million m³ in 2011.

At the country level, the five largest producers of sawnwood are: United States of America; China; Canada; Russian Federation and Brazil. Together, these five countries produced half of the World's sawnwood in 2011 (202 million m³). The United States of America is the largest producer (62 million m³ in 2011), but production there has declined over the last five years and is recovering only slowly. Production in Canada also declined from 2007 to 2009, but has increased somewhat since then. Production in Brazil and Russian Federation has remained relatively stable over the last five years, but it has grown significantly in China (an increase of 55%, from 29 million m³ in 2007 to 45 million m³ in 2011) and China overtook Canada as the second largest sawnwood producer in 2011.



Two of the largest sawnwood producers are also major exporters (Canada and Russian Federation), but the other three main exporters are Sweden, Germany and Finland. Together, these five countries exported 69 million m³ in 2011 (58% of all exports). Canada was the main exporter in 2011 (24 million m³), although exports have not recovered much since the large decline in 2007-09 due to its focus on exports to United States of America. Exports from Germany also fell over the period and have yet to recover. Exports from Sweden and Finland have remained relatively stable over the last five years, but have increased slightly from Russian Federation.



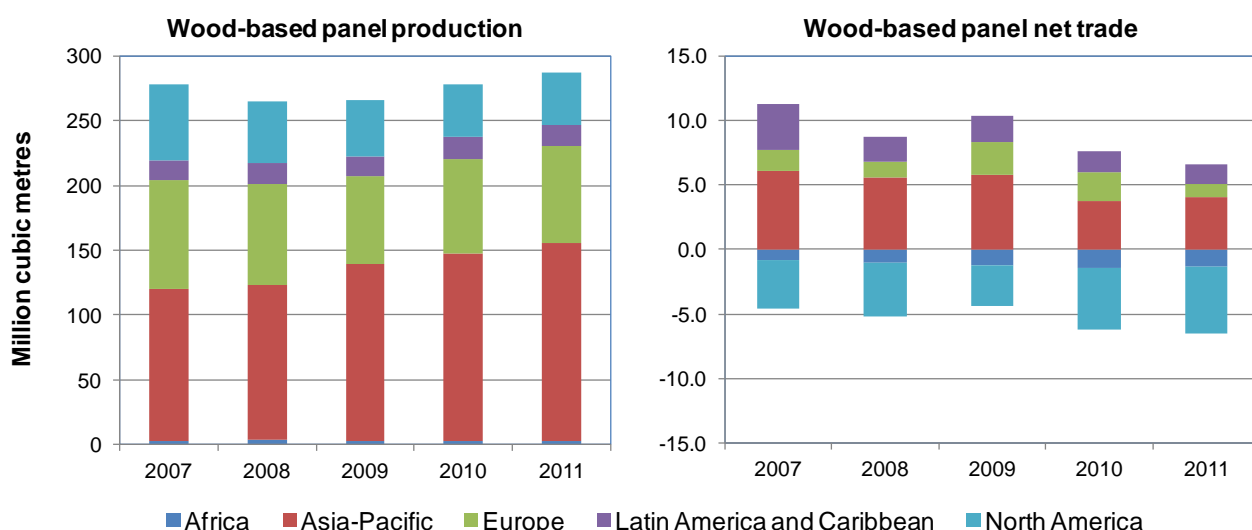
As well as being the largest producers, China and United States of America were also the two main consumers of sawnwood in 2011, with United States of America in the first position (73 million m³) and China in the second position (67 million m³). However, consumption in United States of America declined between 2007-09 followed by a slight recovery, while China's consumption has consistently increased (by 86%) since 2007. The other three main consumers of sawnwood in the World are Brazil, Germany and Japan.

With respect to imports, China overtook United States of America in 2011 to become the largest importer of sawnwood (with imports of 23 million m³ and 16 million m³ respectively). Other major sawnwood importers are: Japan; Italy; and United Kingdom. Together, these five countries imported 57 million m³ of sawnwood in 2011 (equal to 49% of all imports) and in all of these countries imports account for a significant share of sawnwood consumption (e.g. 42% in Japan; 34% in China; 22% in United States of America).

Wood-based panels

The wood-based panels product category consists of the following four products: veneer sheets; plywood; particleboard and fibreboard. Fibreboard is also subdivided in FAO's statistics into hardboard, medium density fibreboard (MDF) and insulating board, based on the density of the panels.

In 2011, global wood-based panel production reached 288 million m³, which was a 3.3% increase over the previous year (278 million m³). The trend in production is similar to the trends in industrial roundwood and sawnwood, with a decline in 2008 and recovery after this, but production in 2011 is now more than in 2007. This is mostly due to rapid and consistent growth in the Asia-Pacific region, where production has increased by 31% over the period.



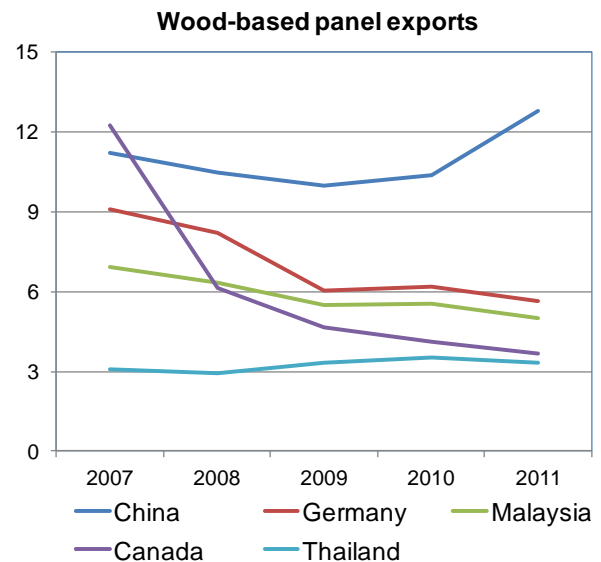
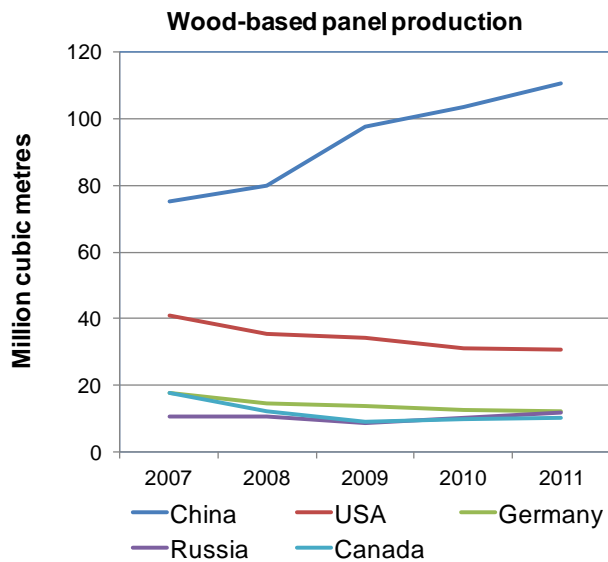
The Asia-Pacific region accounted for 53% of global production in 2011 (153 million m³), followed by Europe (74 million m³ or 26%), North America (41 million m³ or 14%), Latin America and Caribbean (16 million m³ or 6%) and Africa (3 million m³ or 1%). Europe has seen a contraction and slight recovery in production since 2007, but production in 2011 remained 12% lower than in 2007. Production declined in North America (falling by 30% between 2007 and 2011) and has yet to recover.

Global trade in wood-based panels grew by one percent in 2010-11, to reach 71 million m³ (equal to 25% of total production) and global trade has recovered slightly since the decline in 2007-09. However, total trade in 2011 remains 20% lower than in 2007.

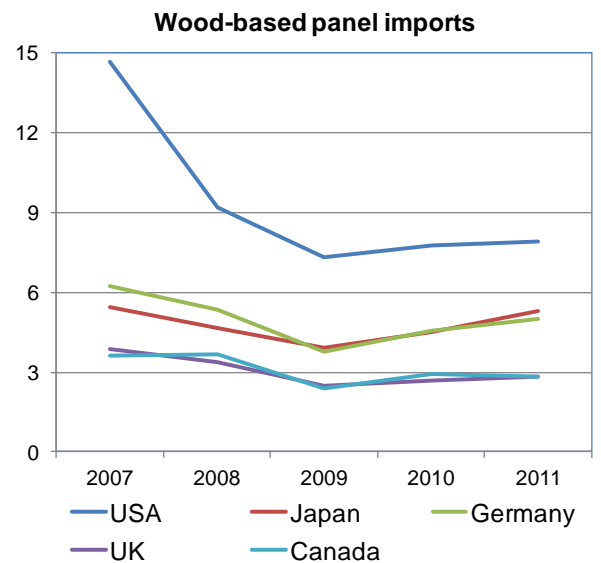
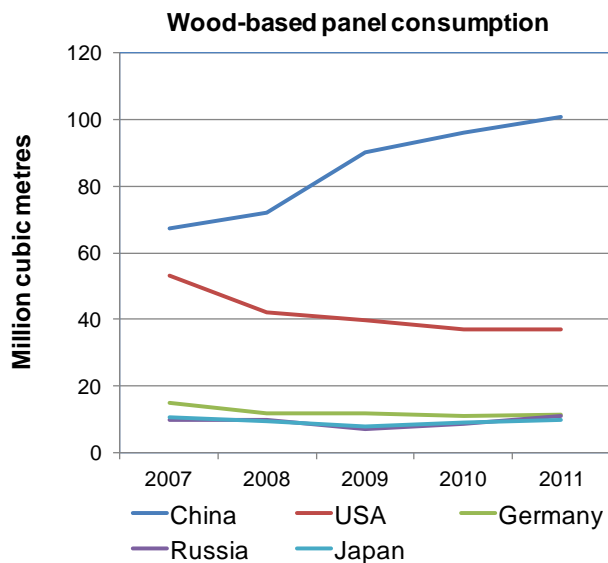
Two regions - Europe and Asia-Pacific - dominate international trade in wood-based panels and together they accounted for 78% of all imports and 85% of exports in 2011. Imports and exports fell over the period 2007-09 in both of these regions and have increased since then, but only in the Asia-Pacific region have they recovered to the levels seen in 2007. In North America, the trend in trade is the same as the trend in production with a consistent decline over the period.

Trends in net trade in wood-based panels are difficult to interpret because, at the global level, total reported exports have been higher than reported imports over the whole period and the trends for net exporters and net importers do not match. However, the trade statistics appear to have improved, so that the figures for total net exports and imports are very close in 2000 and 2011. These show that that North America was the main net importer in 2011 (5 million m³), followed by Africa (1 million m³). Balancing this, net exports from Asia-Pacific were 4 million m³, with net exports of 1 million m³ from both Europe and Latin America and Caribbean.

The five largest producers of wood-based panels (China, United States of America, Germany, Russian Federation and Canada) accounted for 61% of global production (176 million m³) in 2011. China alone accounted for 38% of global production in 2011 and the most notable trend is the 47% increase in production in China over the period, from 75 million m³ in 2007 to 111 million m³ in 2011. Production in Russian Federation also increased slightly over the period. In contrast, production declined by one-quarter in United States of America, by one-third in Germany and by 42% in Canada during this period.

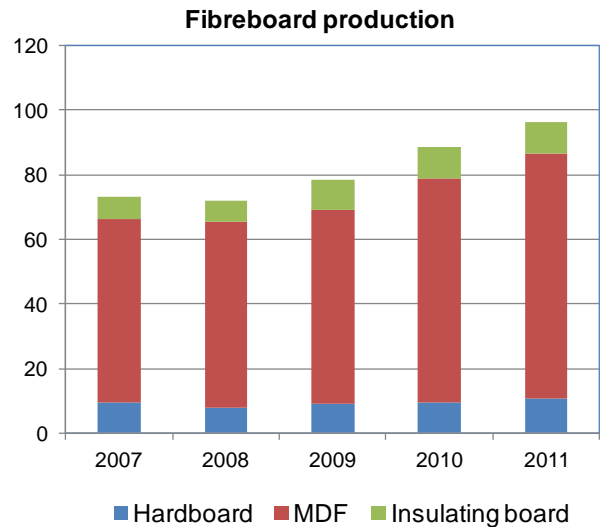
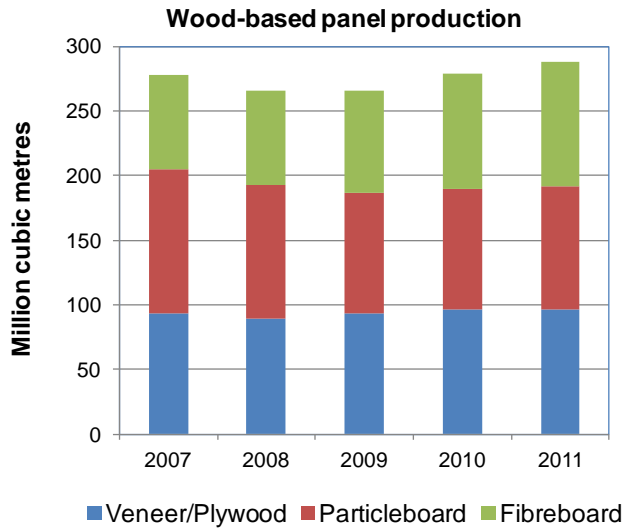


The five largest exporters (China, Germany, Malaysia, Canada and Thailand) exported 30 million m³ in 2011 (equal to 43% of global exports). In the four largest exporters, exports declined in 2007-09 and they have only recovered in China. Exports from Canada appear to have suffered the most from the global recession, with a fall of two-thirds over the period 2007-11. In contrast, exports from Thailand have increased slightly over the period and are approaching the level of exports from Canada.



The four top consumers of wood-based panels are the same as the four largest producers and the trends in consumption are very similar to those presented earlier. The fifth largest consumer is Japan, where consumption fell from 11 million m³ in 2007 to 8 million m³ in 2009, but has since recovered to reach 10 million m³ in 2011.

United States of America was the top importer in 2011 (with imports equal to 22% of consumption), followed by Japan, Germany, United Kingdom and Canada. Together, these five countries imported 24 million m³ (or 34% of all global imports) in 2011. Imports declined in all of these countries from 2007-09, but have recovered since then. The recovery in imports has been weakest in United States of America, where imports fell by slightly more than half in 2007-09 and, at 8 million m³ in 2011, are still 46% below the level reported in 2007. The recovery in imports has also been weak in United Kingdom and Canada. Imports have recovered quite well in Japan and Germany, with Japan overtaking Germany in 2011 to become the second largest importer.

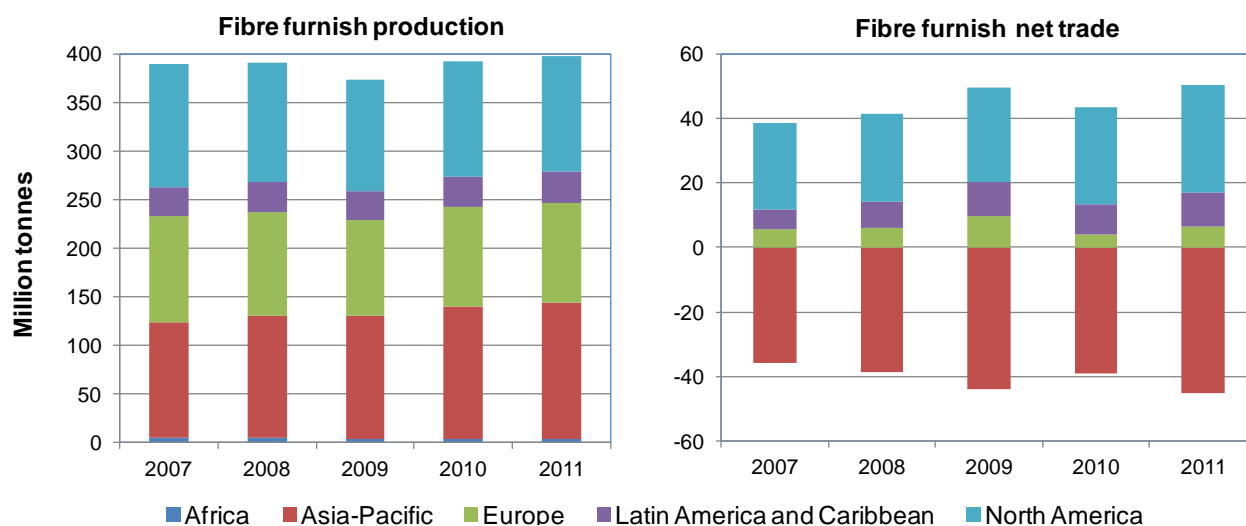


The two figures above show recent trends in production within the wood-based panel product category. Fibreboard emerged as the dominant wood-based panel type in 2011, with production of 97 million m³ (representing 34% of all wood-based panel production). Growth in production of fibreboard was 9% in 2010-11 and 32% over the period 2007-11. Production of all types of fibreboard has increased over the period 2007-11, but most growth has occurred in MDF production (which now accounts for 80% of all fibreboard production). In particular, MDF production increased by 16% in 2009-10 and 9% in 2010-11.

Particleboard production increased slightly in 2010-11 (by 1%), but has not recovered from the fall in production from 2007-10 and, at 95 million m³ in 2011, is still 15% lower than in 2007. In contrast, veneer and plywood production fell slightly in 2008, but has shown a sustained (if modest) recovery to reach a level of 97 million m³ in 2011.

Fibre furnish

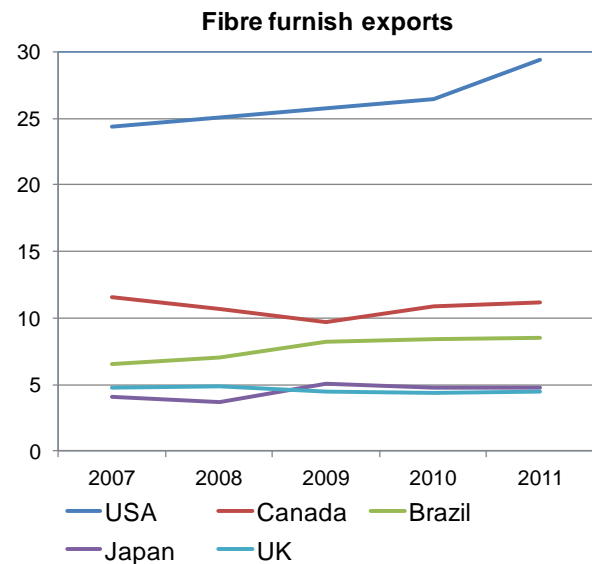
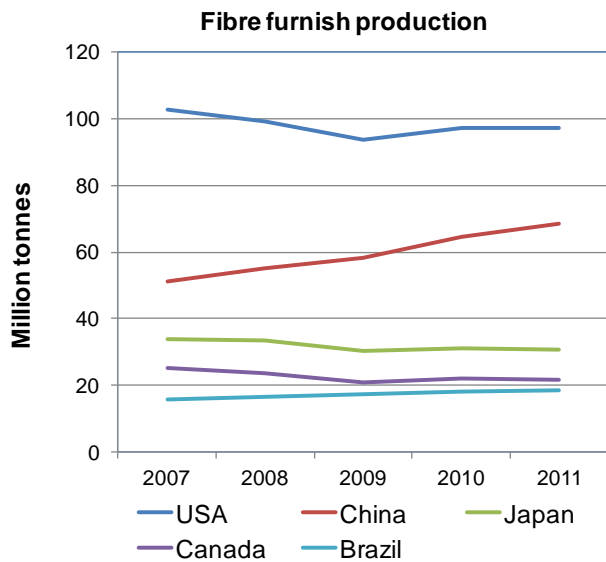
In FAO's forest product statistics, the fibre used to manufacture paper and paperboard is referred to as "fibre furnish". This includes recovered paper (wastepaper), other fibre pulp and the woodpulp used to make paper. The latter includes mechanical, chemical and semi-chemical woodpulp, but does not include dissolving pulp (which is used for other purposes). Chemical woodpulp is also sub-divided in the statistics into bleached or unbleached and sulphite or sulphate woodpulp and various combinations of these different products are presented as product groups in FAOSTAT and the Yearbook.



Global production of fibre furnish in 2011 amounted to 398 million metric tonnes (tonnes). This was a very small (1%) increase on the previous year. As the figure above shows, at the global level, the trend in production of fibre furnish is similar to the trends for other forest products, with a fall in 2009 and recovery thereafter. However, the decline (to 374 million tonnes in 2009) occurred in only that year and the other years over the period 2007-11 show a continuous, gradual increase in production.

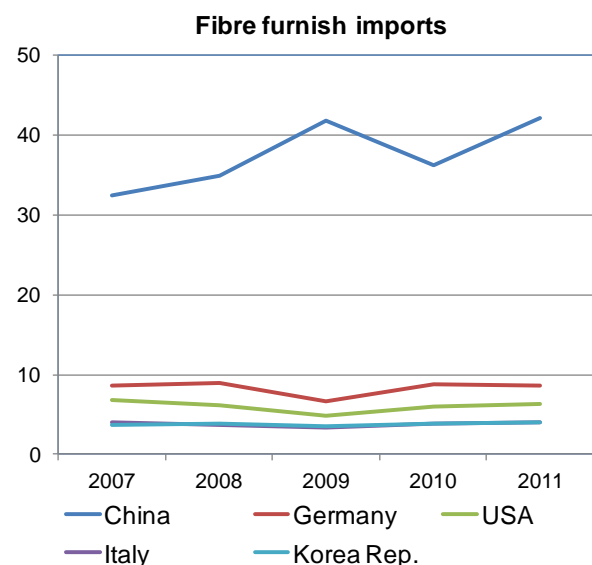
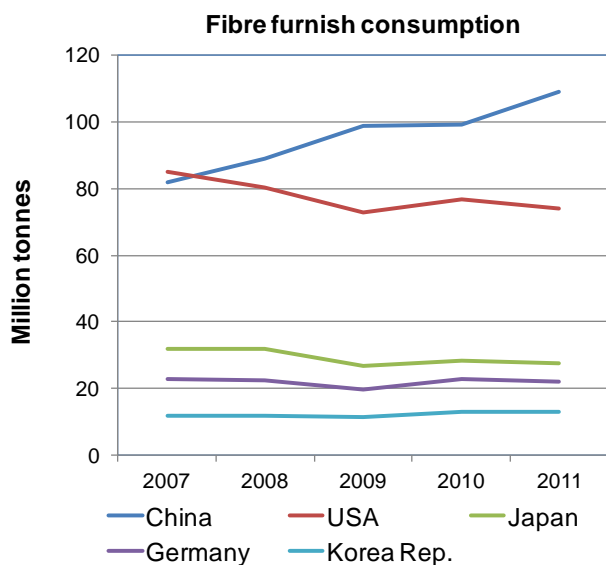
The regional distribution of production in 2011 was as follows: Asia-Pacific - 141 million tonnes (35%); North America - 119 million tonnes (30%); Europe - 102 million tonnes (26%); Latin America and Caribbean - 32 million tonnes (8%); and Africa - 4 million tonnes (1%). The Asia-Pacific region is now the largest producer of fibre furnish due to consistent growth over the period (with production in 2011 about 17% higher than the figure of 120 million tonnes in 2007). Production in Latin America and Caribbean has also grown consistently over the period, although at a much lower level. In contrast, production has declined by 7% in both Europe and North America (from production levels in 2007 of 109 million tonnes and 128 million tonnes respectively).

About one-quarter of fibre furnish production was traded in international markets in 2011 and this trade has increased consistently over the period (from 96 million tonnes in 2007 to 108 million tonnes in 2011 - equal to an increase of 11% in total). Net trade also increased over the period 2007-11. The Asia-Pacific region is the only net importing region and net imports of fibre furnish have increased over the period by 25%, from 36 million tonnes in 2007 to 45 million tonnes in 2011. Net imports have also increased at about the same rate as consumption in the Asia-Pacific region and accounted for 24% of consumption in 2011. The main net exporter is North America, with net exports of 33 million tonnes in 2011, followed by Latin America and Caribbean (11 million tonnes) and Europe (6 million tonnes). Net exports have increased over the period in all three regions, but not by much in Europe.



The main producers of fibre furnish are United States of America, China, Japan, Canada and Brazil. Together, these countries produced 236 million tonnes of fibre furnish in 2011 (59% of the global total). As the figure above shows, production has declined over the period 2007-11 in United States of America, Japan and Canada (by 6%, 10% and 14% respectively). This is due to declining paper production and consumption in these three countries, which is now a common trend in many developed countries where people are using more electronic communication media. In contrast, production in China increased by 35% over the period, from 51 million tonnes to 69 million tonnes. This is partly due to increased use of packaging paper in the rapidly growing manufacturing industries there. Fibre furnish production (and exports) also increased in Brazil, where fast-growing planted forests give the country a competitive advantage in the manufacturing of woodpulp.

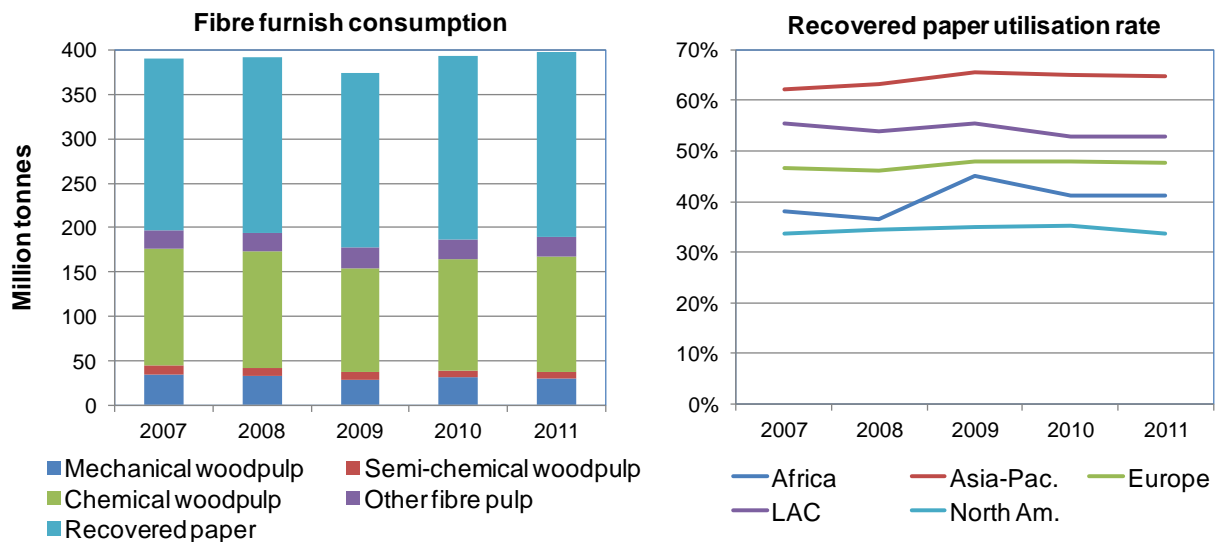
Four of the main producers of fibre furnish are also the main exporters (United States of America, Japan, Canada and Brazil) and the fifth largest exporter is United Kingdom. These five countries exported 58 million tonnes of fibre furnish in 2011 (53% of the global total). Exports remained roughly the same over the period 2007-11 in Canada and United Kingdom, but increased in United States of America and Japan (by 20% in both countries) and Brazil (by 31%). As already noted for Brazil, these trends are partly driven by each country's competitiveness in woodpulp manufacturing. However, because a large part of fibre furnish is recovered paper, the need to dispose of wastepaper can also be important in places like United States of America, Japan and United Kingdom.



The five main consumers of fibre furnish are China, United States of America, Japan, Germany and Republic of Korea and these countries consumed 246 million tonnes of fibre furnish in 2011 (61% of the global total).

The consumption trends in these five countries show a slight decline in consumption in Germany (3% over the period 2007-11) and a larger decline in United States of America and Japan (13%). Consumption has increased a little in Korean Republic (12%) and a lot in China (33%), making China the World's largest consumer of fibre furnish.

Four of the largest consumers of fibre furnish are also the largest importers (China, Germany, United States of America and Republic of Korea) and the other main importer is Italy. Together, imports into these five countries amounted to 65 million tonnes in 2011 (62% of the global total). Comparing the two figures, it can be seen that consumption in several of these countries is highly dependent on imports, with imports accounting for almost 40% of consumption in China and Germany and 30% in Republic of Korea. However, imports have only grown significantly in China, with an increase of 30% over the period 2007-11.



The two figures above show the trends in the composition of fibre furnish consumption between the main products included in this product group. The figure on the left shows that recovered paper and chemical woodpulp are the two main products used to manufacture paper, accounting for 52% and 32% (respectively) of all fibre furnish consumption in 2011. Mechanical woodpulp is the next most important (8%), followed by other fibre pulp (5%) and semi-chemical woodpulp (2%).

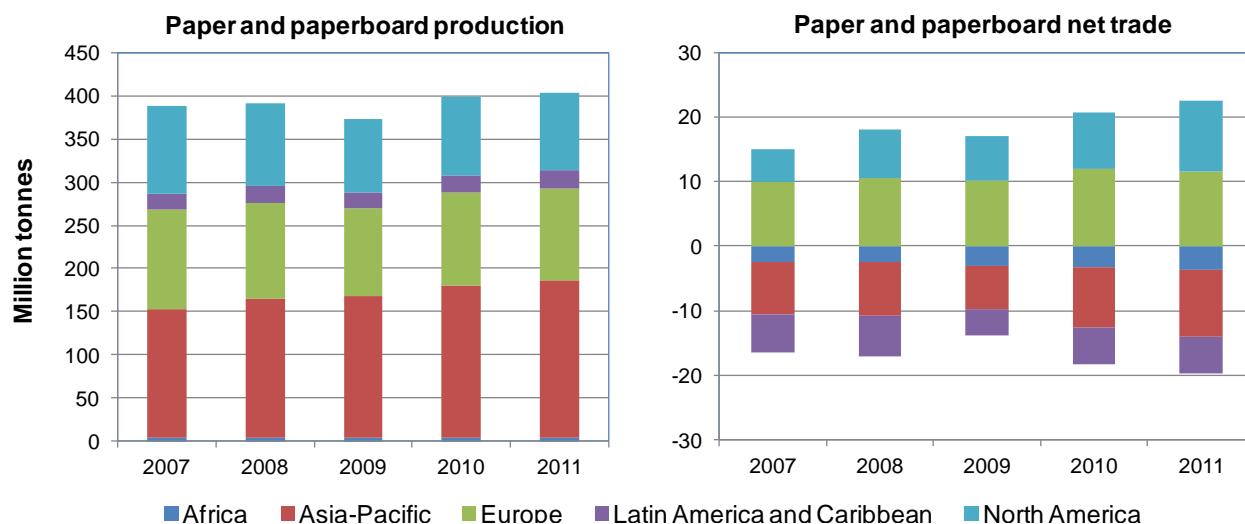
The trends in consumption also show that not only does recovered paper account for more than half of all fibre used to make paper, but it is also increasing in importance. In 2007, recovered paper consumption amounted to 193 million tonnes (50% of the total) compared with the figure of 208 million tonnes (53% of the total) in 2011. In contrast, consumption of all four of the other components of fibre furnish declined (both in absolute and percentage terms) over the same period.

The second figure above shows the share of recovered paper consumption in total fibre furnish consumption (the utilisation rate) in each of the main regions. In all regions except Latin America and Caribbean, recovered paper utilisation increased over the period 2007-11.

Differences in the levels of utilisation and the different trends reflect the geographical and socio-economic situations in each region as well as other factors such as policies on recycling and waste disposal and the availability of pulpwood. Thus, for example, the Asia-Pacific region has a high utilisation rate (partly met by a large amount of recovered paper imports) due to the high demand and intense competition for wood fibre there. Conversely, in North America, where the availability of wood fibre is relatively high, recovered paper utilisation is much lower (and a lot of recovered paper is actually exported to the Asia-Pacific region). Europe lies somewhere in between with both a relatively high availability of wood fibre, but also many policies promoting recycling that encourage the use of recovered paper.

Paper and paperboard

The paper and paperboard product group comprises: newsprint; printing and writing paper; and other paper and paperboard. The latter is also subdivided into: wrapping and packaging paper; household and sanitary paper; and other paper and paperboard not elsewhere specified (NES). Various combinations of these different products are presented as product groups in FAOSTAT and the Yearbook.

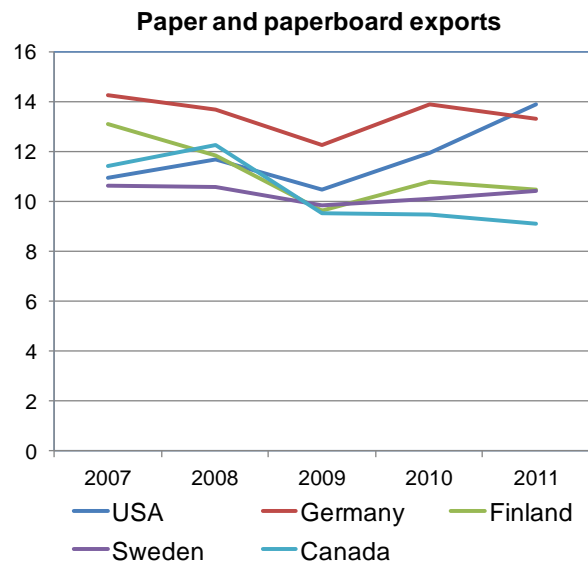
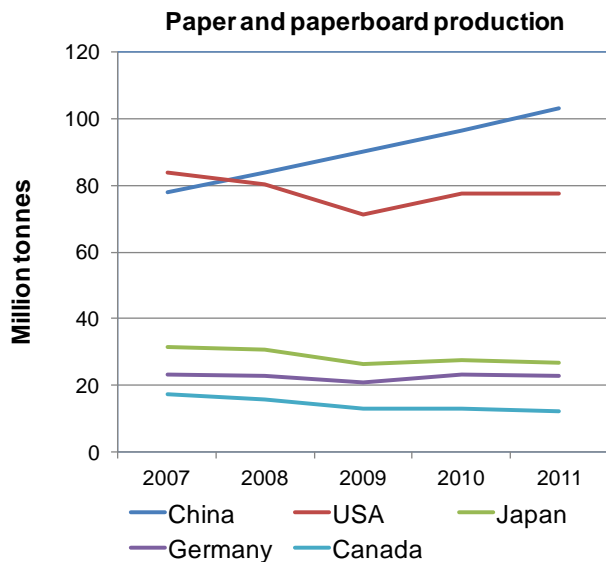


Paper and paperboard production has increased gradually over the period 2007-11 (with the exception of a sudden decrease in 2009), from 388 million tonnes in 2007 to 403 million tonnes in 2011. Growth in production in 2010-11 was 1.1% (slightly above the long-term trend) and growth over the whole period 2007-11 was 3.9%.

Almost all of this growth is due to increased production in the Asia-Pacific region (an increase of 23% from 2007 to 2011). Production in North America and Europe declined over the period (by 12% and 7% respectively), while production in Africa and Latin America and Caribbean remained roughly the same. In 2011, the regional distribution of production was as follows: Asia-Pacific - 183 million tonnes (46%); Europe - 107 million tonnes (26%); North America - 89 million tonnes (22%); Latin America and Caribbean - 20 million tonnes (5%); and Africa - 3 million tonnes (1%).

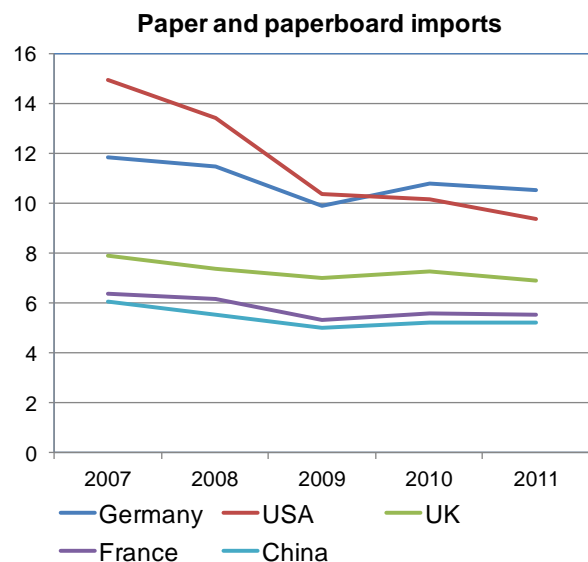
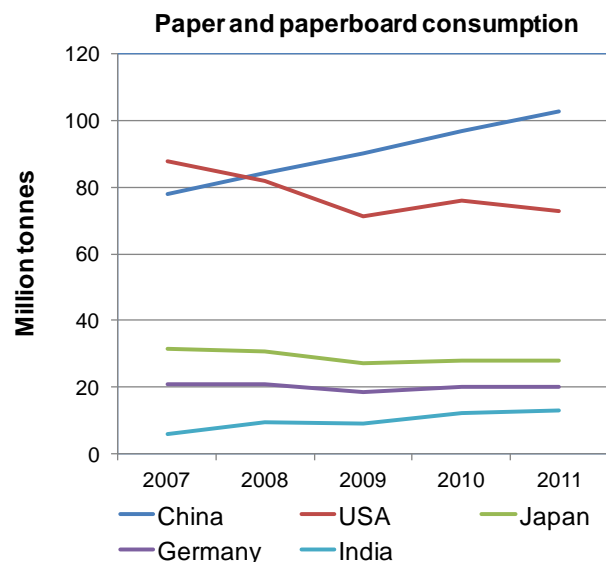
With respect to international trade, about one-quarter of production is exported (roughly the same as the proportion of fibre furnish that is exported), but exports declined slightly over the period from 118 million tonnes in 2007 to 112 million tonnes in 2011. Thus, the current changes in global demand (e.g. high demand growth in Asia-Pacific and declining demand in Europe and North America) appear to be having more of an impact on international trade in fibre furnish rather than on trade in paper and paperboard.

The figures for net trade between the regions show some growth in the period 2007-11. Europe and North America are net exporting regions, each with net exports in 2011 of 11 million tonnes. Asia-Pacific, Latin America and Caribbean and Africa are all net importers, with net imports of 10 million tonnes, 6 million tonnes and 4 million tonnes respectively in 2011. Net trade in all five regions increased at roughly the same rate over the period 2007-11.



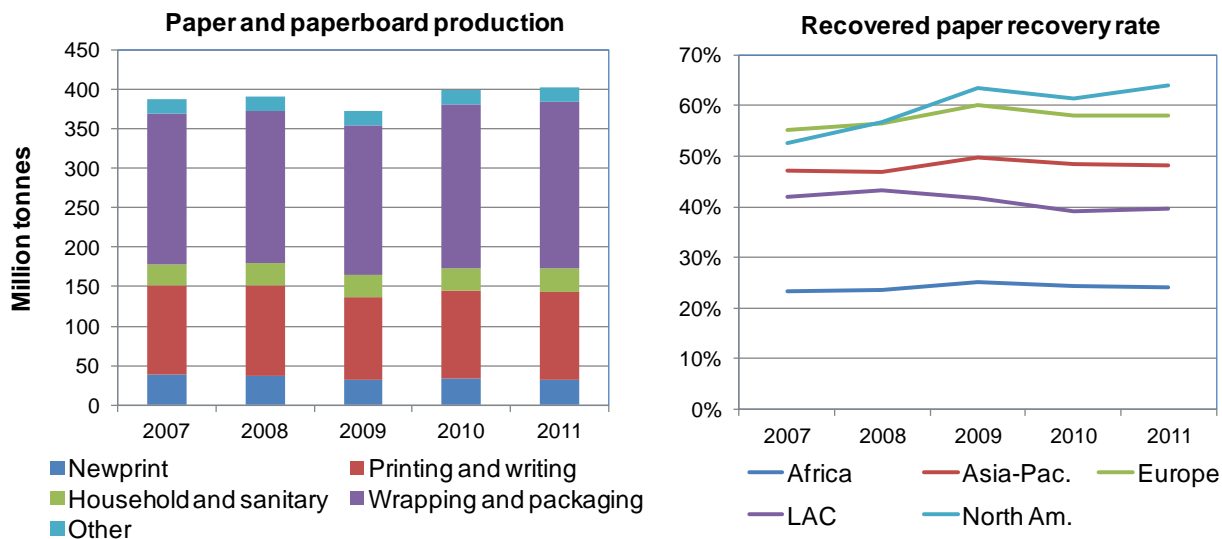
The two largest paper and paperboard producers in 2011 were China (103 million tonnes) and United States of America (77 million tonnes) and, together, their production accounted for 45% of global production. The other three largest producers were Japan (27 million tonnes), Germany (23 million tonnes) and Canada (12 million tonnes), which accounted for another 15% of global production. Again, China was the only major producer where production increased over the period 2007-11 (by 32%). Production in Germany was about the same in 2007 and 2011 and decreased in the other three countries (a fall of 8% in United States of America, 14% in Japan and 31% in Canada).

Exports from the five largest paper and paperboard exporters are roughly the same (between 9 million tonnes and 14 million tonnes). These five countries - United States of America, Germany, Finland, Sweden and Canada - exported 57 million tonnes in 2011 (51% of global exports). The figure also shows that exports are very variable from year to year. However, it seems that exports from United States of America are on an upward trend (e.g. an increase of 27% over the period 2007-11), while they declined slightly in the four other countries.



Trends in paper and paperboard consumption are similar to the trends in production, except that India (rather than Canada) is the fifth largest consumer in the World. Consumption in China increased significantly over the period 2007-11 (by 32%, from 78 million tonnes in 2007 to 103 million tonnes in 2011) and consumption in India doubled over the same period (although at a much lower level - from 6 million tonnes to 12 million tonnes). Consumption declined slightly in Japan and Germany, but fell by 17% in United States of America (from 88 million tonnes to 73 million tonnes). Total consumption in the five largest consumers amounted to 236 million tonnes in 2011, or 59% of global consumption.

The decline in international trade mentioned previously is shown very clearly in the import statistics for the five largest importers of paper and paperboard. In 2007, the five largest importers - Germany, United States of America, United Kingdom, France and China - imported 47 million tonnes, but by 2011 this figure had fallen by 20% to 38 million tonnes. The decline in imports appeared in all of the five countries, but was most significant in United States of America where imports fell by 37%, from 15 million tonnes to 9 million tonnes over the period. The other notable feature of international trade in paper and paperboard is that imports are distributed much more evenly across different countries, with these top five importers accounting for only 34% of global imports in 2011.



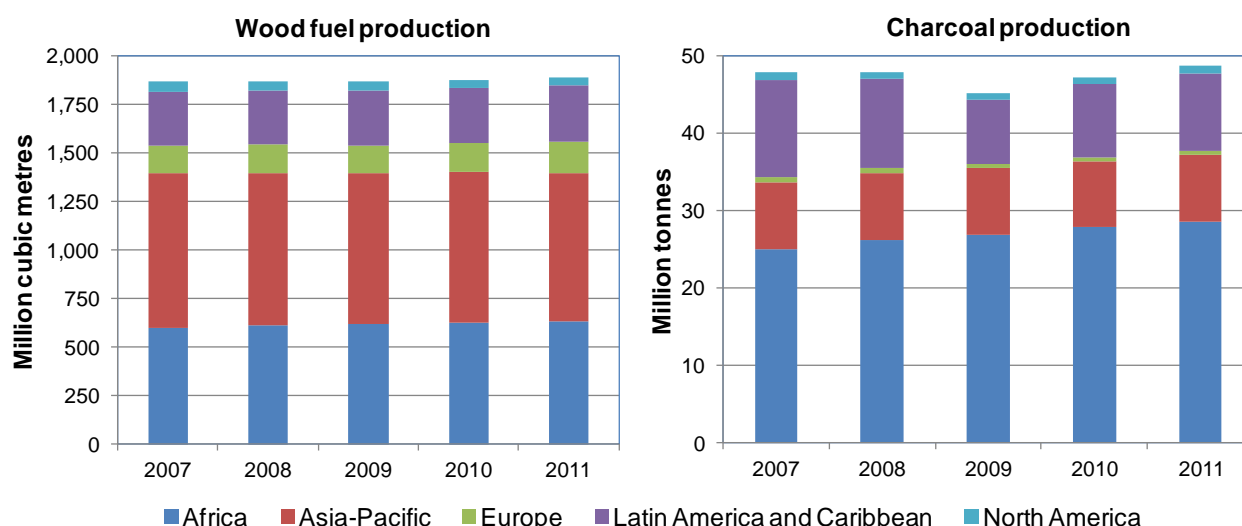
The figure on the left above shows the distribution of paper and paperboard production amongst the five different product types that are included in this group. As the figure shows, wrapping and packaging paper accounted for over half of all production in 2011 (212 million tonnes, or 53% of the total). Printing and writing paper was the next largest (111 million tonnes or 27% of the total), followed by newsprint and household and sanitary paper (8% each) and other paper. The two main trends in the different products is the gradual decline in newsprint production (a fall of 16%, from 38 million tonnes in 2007 to 32 million tonnes in 2011) and the 13% increase in wrapping and packaging paper over the period (from 191 million tonnes to 212 million tonnes). Household and sanitary paper production also increased over the period (an increase of 13%, from 27 million tonnes to 30 million tonnes), while production of the other two types of paper remained roughly the same.

The other figure above shows the amount of paper consumption that is collected for re-use in the pulp and paper industry (the recovery rate). At the global level, this has increased from 50% in 2007 to 53% in 2011. In the three main regions that consume paper and paperboard (and use recovered paper), the recovery rates are high and also increased over the period 2007-11. North America now has the highest recovery rate (64% in 2011), followed by Europe (58%) and the Asia-Pacific region (48%).

Some of the factors that explain differences in recovery rates are the same as noted previously (for the utilisation rate), but one other important factor is the “hidden” trade in wrapping and packaging paper. This occurs where manufactured goods are packed in paperboard and traded across borders (and the movement of the paperboard is not recorded). This partly explains the relatively low recovery rate in the Asia Pacific region, where packaging of goods for export is counted as paperboard consumption in the region, but then this packaging is recovered and counts as fibre furnish production in other regions such as Europe and North America.

Wood fuel

Wood fuel is roundwood that is used as fuel for purposes such as cooking, heating or power production and it includes wood that is used to make charcoal. It includes wood harvested from main stems, branches and other parts of trees (where these will be used for fuel) and wood chips to be used for fuel that are made directly (i.e. in the forest) from roundwood. However, it does not include all types of wood used for energy (e.g. wood residues from the forest processing industry, black liquor or recovered wood waste). It is subdivided into wood fuel from coniferous and non-coniferous species and statistics for charcoal production and trade are also presented as a separate dataset in FAOSTAT and the Yearbook.



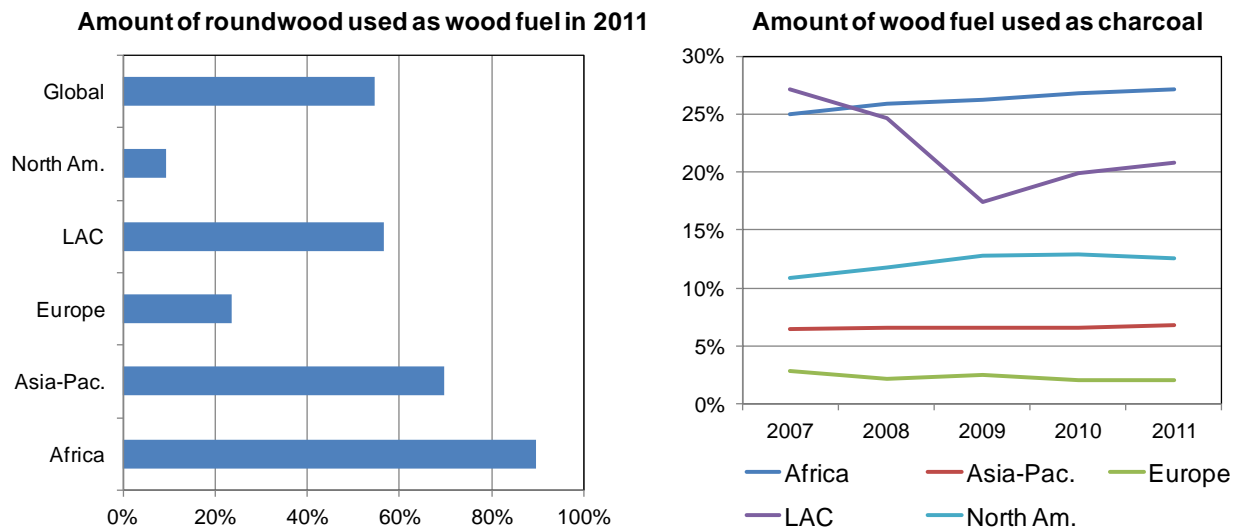
Global woodfuel production amounted to 1,891 million m³ in 2011. This was a very minor increase (0.7%) above the figure for 2010 and a modest increase (1.4%) above the production level in 2007. Thus, in contrast to many other forest products, woodfuel production has remained almost unchanged at the global level. However, at the regional level there are some differences in trends. For example, wood fuel production decreased in North America (by 14%) and Asia-Pacific (by 3%) over the period 2007-11, while it increased in Europe (11%), Africa (5%) and Latin America and Caribbean (3%) over the same period.

The Asia-Pacific region was the largest woodfuel producer in 2011, accounting for 41% of global production (767 million m³). Africa ranked second, with a 33% share (631 million m³), followed by Latin America and Caribbean (15%), Europe (9%) and North America (2%). If current growth trends continue, Africa will produce about the same amount of wood fuel as the Asia-Pacific region by 2025.

About 49 million tonnes of charcoal was produced in 2011, with an increase of 2% over the period 2007-11. Thus, at the global level, the overall trend in charcoal production was similar to the trend for wood fuel.

In 2011, Africa accounted for 59% of global charcoal production and Africa is the only region in the World where charcoal production is increasing rapidly both in absolute and relative terms (with an increase in production from 25 million tonnes in 2007 to 29 million tonnes in 2011). This tremendous growth in Africa was mostly offset by a significant fall in production in Latin America and Caribbean over the same period (a decrease from 13 million tonnes to 10 million tonnes). Charcoal production is relatively small and remained mostly unchanged in the other three global regions.

These differences in trends occur because charcoal users are very different in the two regions. In Africa, charcoal is mainly used in urban settings for cooking, so consumption trends change only gradually. In Latin America and Caribbean, the steel industry is the main charcoal consumer, so trends in production are closely linked to (more volatile) economic trends. This is demonstrated by the sudden large decrease in production in Latin America and Caribbean from 12.6 million tonnes in 2007 to 8.3 million tonnes in 2009, which was so large that it had an impact on the global charcoal production figure that year. Production in Latin America and Caribbean has since recovered to 10 million tonnes in 2011, but is still far below the production level in 2007 (due to the slow global economic recovery). However, charcoal production in Latin America and Caribbean might increase strongly when higher global growth returns and demand for steel improves.



The graph on the left above shows the proportion of all roundwood production that was used as wood fuel in 2011. (In FAO statistics, roundwood is simply divided into industrial roundwood and wood fuel). The other graph shows how much of this wood fuel was converted into charcoal before it was used.

At the global level, wood fuel production accounted for slightly more than half (55%) of all roundwood produced in 2011. This proportion was also the same over the whole period (2007-11).

The importance of trees and forests as a source of fuel is highest in Africa, where wood fuel accounted for 90% of roundwood production in 2011. Wood fuel was also relatively important in the Asia-Pacific region, where it accounted for 70% of production. Woodfuel use in Latin America and Caribbean (at 58% of all roundwood production) was very close to the global average, whereas wood fuel in Europe and North America accounted for only 24% and 9% (respectively) of all roundwood production in these two regions. These proportions did not change very much in most of the regions over the period 2007-11. The one exception was Europe, where the importance of wood fuel use (as a proportion of all roundwood production) increased slightly from 20% in 2007.

The proportion of wood used to make charcoal remained the same over the period 2007-11 (at 15%) and, in many regions, the proportion did not change very much (although there are quite large differences in the proportions in different countries). The two exceptions are Latin America and Caribbean and Africa. In the former, the proportion changed a lot due to changes in steel production (explained previously). In Africa, there was a slight increase from 25% in 2007 to 27% in 2011. This is part of a longer trend observed in Africa, where charcoal consumption has been increasing due to people gradually moving from rural to urban areas. In Latin America and Caribbean, the proportion fell a lot in 2009, but has since recovered slightly (for reasons discussed previously).

Development of FAO's forest product statistics

This last section presents some details of recent changes to FAO's forest product statistics, the results of capacity building efforts and improvements in dissemination of the statistics. Highlights for 2012, include the following:

- In collaboration with the International Tropical Timber Organization (ITTO), a statistical capacity building workshop was held in Panama on 2-4 October 2012 for countries in Central America. As a result of this workshop, forest product statistics for the countries in this region were revised and additional new data was added to the FAOSTAT Forestry database.
- Updated data series on pulp and paper production were received from China and these statistics were used to revise FAO's pulp and paper statistics for China for the period 2000-11.
- Text in the Yearbook of Forest Products was translated into Russian, so that the next Yearbook 2011 (due in April 2013) will be published in all six official languages of FAO (English, French, Spanish, Chinese, Arabic and Russian).
- In collaboration with ITTO, UN-ECE and Eurostat, FAO submitted a proposal to the World Customs Organization (WCO) to improve international trade statistics (the Harmonized System 2017 Edition or HS2017). This included an improvement to the explanatory notes describing the species that should be recorded as "tropical" wood products, an expansion of the species groups used in some parts of the system and a few other minor improvements.
- In addition, based on a proposal by UN-ECE in 2008, a specific code for wood pellets has been added to the HS and, from 2012, wood pellets can be clearly and precisely recorded in international trade statistics (HS2012). This change will be very important considering the huge growth in wood pellet trade in recent years. FAO (with partner agencies) will start collecting global statistics on production and trade of wood pellets from next year and will disseminate the statistics in FAOSTAT and the Yearbook when a sufficient number of countries start to report these figures.

For more information about FAO's forest product statistics, please contact:

Arvydas Lebedys
Forestry Officer (Statistics)
Forest Economics, Policy and Products Division
FAO Forestry Department
E-mail: arvydas.lebedys@fao.org
Website: <http://www.fao.org/forestry/statistics>